Human Resources Management (HRM)
Business Process Reengineering (BPR) Metrics Guidance

BPR is a methodology for assessing process weaknesses, identifying gaps, and implementing opportunities to streamline and improve these processes. In accordance with Section 1072 of the National Defense Authorization Act (NDAA) for Fiscal Year 2010, all Department of Defense (DoD) business system investments costing more than $1 million over the Future Years Defense Program (FYDP) are required to demonstrate proof that appropriate BPR efforts were undertaken and show that the business process enhanced by the proposed business system is streamlined and efficient in order to receive funding authorization.

System owners are accountable for documenting metrics associated with the problem statement and business case; these metrics are necessary to evaluate the success of the improved process and information technology (IT) solution implementation. The difference between the baseline (state of the current process) and projected target is the quantitative proof used to ensure business process efficiency, effectiveness, and justification for the investment of funds.

What are metrics?

Metrics are a scientific method for collecting baseline and target measurements using continuous data expressed as integers. Metrics should quantifiably measure and focus on process outputs, process inputs, key points in a process, and overall process performance within a given program.

Metrics should be supported by a data collection plan and operational definitions. A data collection plan ensures that data collected is valid and enables process analysis. Operational definitions provide instructions concerning how measurements are and will be developed.

How to Establish Metrics

The following guidance is provided to help HRM system owners identify appropriate business-focused metrics for BPR that will more effectively align to the Enterprise Transition Plan (ETP) and Pre-Acquisition Activity requirements.

BPR metrics should tie directly to the specific problem that is being solved, i.e., the reason the existing process is not meeting the customer requirements.

Problem Statement: The current process transmits data necessary for patient care, but several major technical challenges are affecting the effective transfer of this information, including: network connectivity; aggregating the collected data to avoid deletion, duplication, and correction of inaccurate data provided; and dissemination of that data to follow-on care providers. There must be more efficient and effective ways to move medical data.

Once the problem is identified, consider how the issues identified in the problem statement can be quantified. In other words, what can be measured? Refer to the keywords in the BPR Metrics Guide (reverse side) for some ideas.

The keywords in the problem statement above are "***duplication, inaccurate, and efficient***."

Translate the issues identified in the problem statement into measurable statements using the BPR Metrics Guide (reverse side).

The first two keywords (duplication and inaccurate) speak to **defects,** and the last keyword (efficient) speaks to **cycle time**. Thus, at a minimum, two metrics should be provided: one for defects and one for cycle time. A metric addressing cost savings may be included but will not replace the metrics directly aligned to the problem statement. A metric addressing network connectivity would be considered an IT metric and not a process metric; it may be included but should not replace the metrics directly aligned to the problem statement.

Baseline the current state of the process by documenting the data that clearly depicts the state of the current process using quantitative (numerical) terms.

Cycle Time: The current process takes four days to transfer the necessary data.	**Defects:** The current process yields errors in 30 out of 100 weekly reports (30% error rate).

Using the business case and customer need that must be met to solve the problem, establish a quantitative target.

Cycle Time: In order to provide quality care needed, the transfer of data must occur within one business day.	**Defects:** The error rate must be decreased to two out of 100 weekly reports (2% error rate).

BUSINESS-FOCUSED BPR METRICS GUIDE

Category	Keywords	Types of Measures	Examples (Quantitative Terms)	
			Baseline	**Target**
Time	• Cycle time • Delays • Efficiency • Faster • Inefficient • Quicker • Responsiveness • Slow • Timeliness	• Delivery of reports, supplies, queries, dashboards • Resolution of complaints, Help Desk tickets • Amount of time to complete a task	**How long does delivery take using the current process?** **Example:** *It takes four weeks to deliver supplies.*	**How long will delivery take with the new modernization implementation?** **Example:** *It will take two days to deliver supplies.*
Defects	• Availability • Duplication • Entry of manual data • Errors • Inaccuracies • Information & data • Quality assurance • Reliability • Service quality	• Number of inaccurate reports • Number of duplications • Number of errors per form • Number of errors in the report, system, information, products	**How many errors within dashboards currently exist in the legacy system?** **Example:** *Four hundred out of 1,000 dashboards have incomplete or missing information.*	**How many errors within dashboards will exist in the new modernization implementation?** **Example:** *Ten out of 1,000 dashboards will have incomplete or missing information.*
Production	• Accessibility • Coverage • Customer benefit • Customer service • Effectiveness • inaccuracy in tracking orders, people, supplies • Management & innovation • Mission readiness • Productivity • Security and privacy	• Number of orders, people, reports, supplies, dashboards, products • Resolution of complaints • Trained personnel	**How many reports are currently in the legacy system?** **Example:** *Five hundred reports are processed per day.*	**How many reports will exist with the new modernization implementation?** **Example:** *Two hundred reports will be processed per day.*
Cost	• Cost • Financial, technology costs/profit • Return on investment (ROI) • Savings	• Amount of money spent to do business • Amount of money for labor, production, paper, shipping subsuming/sunsetting of legacy system(s)	**What is the cost for shipping currently within the manual system?** **Example:** *It costs $2 million to ship paper requests annually.*	**What will be the cost for shipping with the new modernization implementation?** **Example:** *It will cost $500,000 to maintain electronic requests annually.*

UNACCEPTABLE METRICS FOR BPR:

1. Baseline or Target of "0" indicating that there is no problem, the problem has not been measured, or that there is no improvement planned ("0" is considered insufficient for BPR baseline and target metrics)
2. Percentages provided without numerical values/unit values (unit values must accompany all percentages; use whole numbers)
3. Measures that do not link back to the problem
4. System/IT solution-focused measures
    a. Server up-time
    b. Number of sites at which implementation has occurred
    c. Amount of testing completed
    d. Date of final implementation
    e. % of implementation completed

Where can I learn more?

For more information, please visit the HRM Investment Management Resource Library, or email dodhra.mc-alex.dhra-prim.mbx.hrm-invest-mgmt@mail.mil.

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